ABSTRACT OF THE DISCLOSURE

An asymmetrical digital subscriber line (ADSL) system for transferring an analog audio signal and high speed digital data on the side of a subscriber, from and to a station, through one ADSL subscriber line, includes an apparatus on the subscriber side which converts an analog audio signal into a digital audio signal. The apparatus includes a line concentrator to concentrate the audio signal together with high-speed digital data by time division, and supplied to the subscriber line after modulation. An apparatus on the station side simultaneously supplies a signal received from the subscriber side to an analog telephone network, and supplies high-speed digital data to a high-speed digital data network. Each digital audio signal as well as each high-speed digital data is converted into asynchronous transfer mode (ATM) cells in each respective line concentrator, and each destination address is attached to the ATM cells.